



Nebraska Resources

Newsletter

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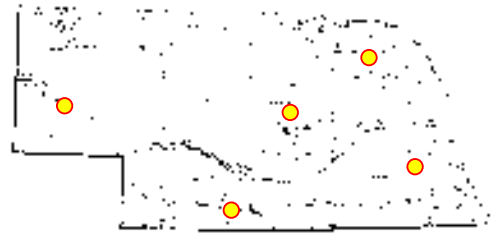
<http://www.dnr.state.ne.us>

Editor's Note:

The DNR Field Offices article in this newsletter is the fifth in a series on DNR Divisions/functions.

DNR Field Offices

In addition to the main office in Lincoln, the Department of Natural Resources has field offices in **Bridgeport, Cambridge, Lincoln, Norfolk and Ord**. These offices enhance our communication with the public and increase DNR's efficiency and effectiveness in our regulatory and data collections duties. Twenty-two staff members perform a variety of duties in these five field offices.

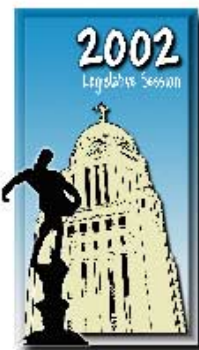


Field Office Location

Water Administration

Enforcement of water laws as they relate to the distribution of surface water is the main function of the field offices. There are approximately 8500 surface water rights in Nebraska that must be managed. During times when demand for water exceeds the supply, the field staff must determine which water rights must be

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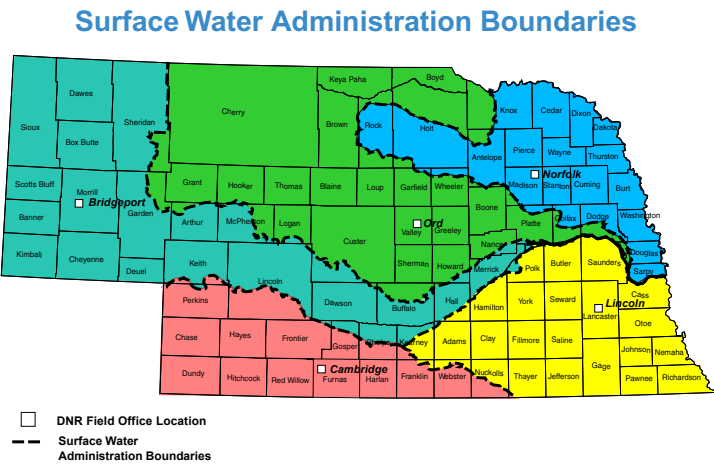
Legislative Session

By Dave Volger

While this year's legislative session focused primarily on the State's budget situation, a few important bills related to DNR did manage to pass by being added on to other legislation. **LB 458** was passed by the Legislature and signed by the Governor on March 18. The bill which originally only removed a reporting requirement for the Water Well Contractor's Board contains a number of amendments. Three amendments were added which will support DNR's mission. First, all industrial water well owners will now be able to apply to the Department to transfer water off the overlying lands. Previously, industrial well owners who had existing wells on April 23, 1993 had only five years from that date to apply for such permits. All permits will need to be evaluated by the Department prior to approval. Also, in response to the Kansas v. Nebraska lawsuit in the Republican River basin, included as an amendment is an extension of the sunset date on the temporary moratorium on well drilling under LB 108. The extension is for five years making the sunset date 12/31/07. Finally an amendment was added which **removes the requirement of the Department to collect fees for change of ownership and updates of information**. This will hopefully be an incentive to well owners and water right holders to send those changes to the Department to help keep our databases up to date. The costs of the Department for that work will now be borne 50% from the Water Well Decommissioning Fund and 50% from the Water Well Contractor's Fund for the next two years.

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DNR field offices operate & maintain
164 stream and reservoir gage stations



closed to provide proper delivery of water with regards to the priority and preference systems set out in the law. After notifying the junior appropriators, the field staff must check to insure the shut-off order was implemented. Although most permit holders understand the need for water administration and are very cooperative, occasionally there are disputes that field office personnel must resolve.

Stream Gaging

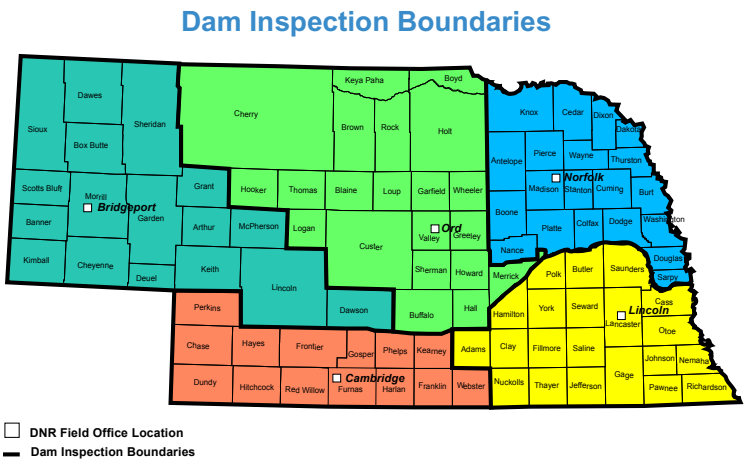
Stream gages are used to determine the supply of water in the stream systems. Gages on canals record the rate and total volume of water being diverted from the streams and reservoirs. The field offices operate 70 stream and reservoir gages and 94 canal gages throughout the state. These gages supplement the multipurpose stream-gaging network operated by the U.S. Geological Survey. Stream gages record the stage (depth) of water at specific sites. The relationship between stage and flow is determined at each site by making periodic measurements of the flow by measuring and totaling observations of the depth and velocity of the water at numerous points across the stream channel. This relationship changes whenever the streambed or channel changes, therefore the frequency at which measurements must be made depends on how stable that relationship is. During the irrigation season, more frequent measurements are made on gages with shifting streambeds.

Most gages can be accessed and the data acquired by remote access tools, mostly by telephone. An annual record for each site is com-

puted and published by the Department. In addition to being used to aid in the delivery of water, stream flow gage information is also used for many other uses such as flood forecasting, floodplain planning, road construction and environmental concerns.

Dam Inspection

There are approximately 2000 dams in Nebraska that require safety inspections. With the exception of the 100 or so high hazard dams, the field offices inspect most of the dams in the state. Major deficiencies as well as maintenance needs are noted during these inspections and the owners informed of the necessary repairs or operational changes needed.



Adjudication of Water Rights

Unused water rights are subject to cancellation. The field office staff investigates the past use of water rights by interviewing the water right holders and making on-site inspections. It is on the basis of these reports that unused water rights are called to hearings and their continued existence or cancellation is decided.

Interstate Compacts and Decrees

The field offices are also responsible for implementing and ensuring the enforcement of the provisions of interstate compacts and decrees.

Individual Field Offices

While the basic duties of the field offices are similar across the state, the details of the job vary greatly from one part of the state to another.

New Commission Member selected to represent Nemaha Basin



The Nemaha River Basin

selected a new
Commission

member to represent their interests on the Natural Resources Commission. A caucus held May 9, 2002, resulted in the selection of Dan Watermeier, a Nemaha NRD Board Member, to fill the position left vacant when Commission member Donald Larson resigned. Dan will complete the term that expires January 2003. DNR staff members and Commission members welcome Dan.

Antelope Creek Project Approved

By Tom Pesek

The Natural Resources Commission approved state financial assistance through the Nebraska Resources Development Fund for the **Antelope Creek Project** in Lincoln at its March 21, 2002, meeting. The funding is in the form of a **grant for up to \$6,224,000.00**, not to exceed 60% of the **Lower Platte South NRD's** local project cost-share of \$10,373,333.33 for the flood control portion of the project. The total Antelope Creek Project includes urban development and transportation features as well as the flood control portion. In addition to the NRD, the City of Lincoln and UN-L are sponsors of the total project

This flood control project involves the construction of a new floodwater conveyance channel from 22nd and J Streets to the confluence of Antelope Creek with Salt Creek on the Nebraska State Fair Park grounds, a 2.3-mile recreation trail, and bridge improvement work.



Commission Advances Blue Creek Project

By Tom Pesek

At its March 21, 2002, meeting the Natural Resources Commission advised the **Blue Creek Irrigation District** and the **North Platte NRD** that they may proceed with the preparation of an application and feasibility report for the **Blue Creek Irrigation District Rehabilitation Project**.

In the project proposal a Nebraska Resources Development Fund **loan of \$261,574.00** was requested to replace open ditches and laterals with underground PVC pipe to serve 1,200 acres of currently irrigated land north of Lewellen. The Commission informed the project sponsors that the project may qualify for a low interest rate (3%) loan and directed that issues related to water conservation and water quality and quantity impacts be addressed in the project application and feasibility report.

Irrigation Deliveries

Frenchman Valley and H&RW boards met for a special meeting Wednesday, May 15, 2002. H&RW's Board decided not to deliver water this year. The Bureau told them that this water could be carried over until next season. H&RW agreed to allow the loss that would have been charged to H&RW this year to be used by Frenchman Valley Irrigation District. With these changes, Frenchman Valley is planning to deliver water for approximately 45 days, starting July 1 and will deliver 3.5 to 4 inches per acre.

EXPECTED IRRIGATION DELIVERIES AS OF May 20, 2002

BASIN	IRRIGATION DISTRICT	NORMAL SUPPLY	EXPECTED SUPPLY
Platte River Basin	Central Nebraska Public Power District	18 inches	18 inches
	Nebraska Public Power District	18 inches	Full Supply
	State Line Canals	18 inches	Less than 15 inches
Loup River Basin	North Loup Public Power and Irrigation District	18 inches	18 inches
	Twin Loups Irrigation District	18 inches	18 inches
	Sargent Irrigation District	15 inches	15 inches
	Middle Loup Irrigation District	13 inches	13 inches
	Farwell Irrigation District	12 inches	12 inches
Niobrara River Basin	Ainsworth Irrigation District	15 inches	15 inches
Republican River Basin	Nebraska Bostwick Irrigation District	12 inches	11 inches
	Frenchman-Cambridge Irrigation District		
	Cambridge Canal	12 inches	9 inches
	Bartley Canal	12 inches	6 inches
	Red Willow Canal	12 inches	6 inches
	Meeker-Driftwood Canal	12 inches	6 inches
	H&RW Irrigation District	---	0 inches
	Frenchman Valley Irrigation District	---	4 inches

2002 Legislative Session Continued from page 1

LB 1003 which originally was a Game and Parks bill was passed with two amendments important to DNR. First, the **Water Policy Task Force** (originally LB 1023) was added. There will be **49 members and an executive committee of 14 members**. The **main committee** is to include: 20 irrigators with at least one from each of the 13 basins in the State, including 3 from the Republican, 2 from the North Platte, 2 from the Middle Platte, 2 from the Loup, 2 from the Elkhorn, 2 from the Big Blue, and one each from the South Platte, Lower Platte, Little Blue, Nemaha, Niobrara, White Hat, and Missouri tributaries; three representatives from agricultural orgs.; three representatives from environmental orgs.; two representatives from recreational orgs.; three representatives from the state at large; five representatives from the Assoc. of Resource Districts; four representatives from the Neb. Power Assoc.; five representatives suggested by the League of Municipalities; one representative from the Dept. of Nat. Res.; one representative from the Attorney Generals Office; and the chair and vice chair of the Natural Resource Committee. In addition, an amendment was adopted which will allow any member of the legislature to participate on the task force. The **executive committee** will consist of 3 representatives from irrigation interests; 1 representative from an agricultural organization; 1 representative from an environmental organization; 1 representative from a recreational organization; 1 representative of the state at large; 1 representative of Natural Resource Districts; 1 representative of the Nebraska Power Assoc.; 1 representative of municipalities; 1 representative of the Dept. of Nat. Res.; 1 representative of the Attorney Generals office; and the chair and vice chair of the Natural Resources Committee of the Legislature. **The duties consist mainly of looking at LB 108, temporary water transfers, permanent transfers, water leasing and/or banking, and inequities between surface and groundwater users.** The bill also provides for the hiring of a facilitator, which has begun. As soon as the facilitator is hired and the task force members identified, the real work will begin. Funding for the task force will come from a General Fund appropriation of \$250,000 with a corresponding reduction in the Soil and Water Conservation Fund of \$250,000, \$150,000 from the Petroleum Release Cash Fund and the application for an Environmental Trust Grant of at least \$350,000. Finally, LB 1003 includes what was LB 938 which is the authorization for use of the Soil and Water Conservation Fund to assist landowners installing sediment control structures of lands being converted to urban uses.

Nebraska River Basins



Nebraska Carbon Assessment

By Steve Gaul

In March the Department of Natural Resources and USDA Natural Resources Conservation Service released a county level assessment of how management decisions involving cropping and tillage systems affect soil organic matter. *"Quantifying the change in greenhouse gas emissions due to natural resource conservation practice application in Nebraska – the Nebraska Carbon Storage Project"* was compiled by the Colorado State University Natural Resources Ecology Laboratory and the USDA Natural Resources Conservation Service under contract to NDNR. It was the second of two reports mandated by LB 957 (2000).

The assessment suggests that Nebraska agricultural soils are currently sequestering 1.28 million metric tons of carbon per year, largely through increased adoption of conservation practices over the last 10 to 20 years. It found that non-irrigated systems provide 45% of the sequestration benefit on cropland, while irrigated systems provide the remaining 55%. The assessment also indicated application of conservation practices on Nebraska cropland are sequestering carbon equivalent to an offset of 12% of Nebraska's 1999 fossil fuel carbon emissions. Another finding was that rangeland has the potential to sequester 5 million metric tons of carbon in Nebraska over the next 20 years through grazing management practices on areas in fair or poor condition.

Work on the assessment involved every county in the state and use of a carbon sequestration rural appraisal survey instrument. Funding was provided through the Nebraska Environmental Trust, the Nebraska Public Power District, the Nebraska Corn Board and the Farm Policy Task Force. The report is available on the NDNR website at: <http://www.nrc.state.ne.us/Carbon/NebraskaNRCS.pdf>



NRD Field Offices Continued from page 2

The **Lincoln field office**, supervised by Keith Paulsen, administers the most surface water rights, approximately 3,400 in the Lower Missouri, Lower Platte, Little Blue, Big Blue and Little and Big Nemaha River basins. Located in the wetter eastern part of the state, most of the water administration is to make sure no diverter is taking more than their legal rate. However, when water is short, the staff is kept very busy locating and shutting of numerous individual pumpers. The Lincoln Field office also administers the Blue River Compact, and monitors the flow of the lower Platte River for the Game and Parks Instream Flow permits. The latter task requires frequent stream flow measurements of the Lower Platte River.

The **Norfolk field office**, supervised by Bill Birkel, covers 22 counties in the north eastern part of the state, including the Elkhorn River, other tributaries to the Lower Platte and to the Missouri River. The Norfolk office administers approximately 900 surface water appropriations,

The **Ord field office**, supervised by Karl Wadas, administers approximately 1800 surface water rights, including several large irrigation canals. The area of responsibility is the largest of all the field offices covering most of the Loup River Basin in the Sand Hills and much of the Lower Niobrara River Basin.

The **Cambridge field office**, supervised by Brad Edgerton, is primarily responsible for administering 897 surface

water rights in the Republican River Basin. Crossing the drier southwestern part of the state, water administration is an annual occurrence. The responsibility for administering the Republican River Compact also falls to the Cambridge office. Currently, the Cambridge office is serving as a valuable resource for the attorneys and consultants involved in the Republican River litigation.

The **Bridgeport field office**, supervised by Tom Hayden, administers approximately 1,700 surface water rights along the North Platte, South Platte and Central Platte Rivers as well as the Upper Niobrara River, Hat Creek, and Lodgepole Creek. Located in the drier western part of the state, administering junior water rights for senior rights is a regular occurrence. The office must also keep track of storage water released from reservoirs in Wyoming and Nebraska's Lake McConaughy. Storage water is water that is delivered by contract from a reservoir to an irrigation district. This water must be protected from unlawful diversion by other irrigators. Every day during the irrigation season the Bridgeport office obtains data by radio or telephone from 80 gaging stations to provide input for a computer program that keeps track of the storage water in each section of the North Platte and Platte rivers. The office also tracks and protects environmental water released from Lake McConaughy in compliance with its Federal Energy Commission License, and monitors compliance by Wyoming with the North Platte River Supreme Court Decree and the South Platte and Niobrara Compacts with Colorado and Wyoming, respectively. During the Nebraska v. Wyoming Supreme Court Case, the Bridgeport office was very busy providing information to the state's attorneys and consultants.

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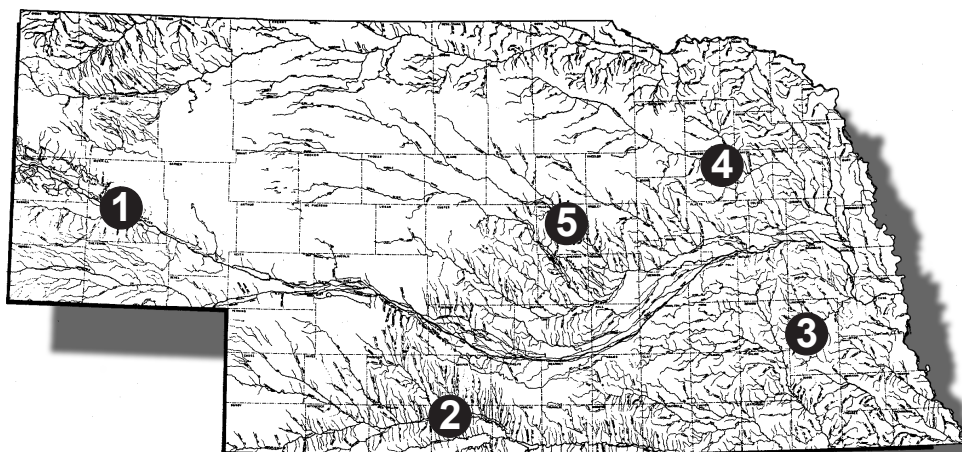
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**More information on the
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....dedicated to the sustainable use and proper management of the State's natural resources.